Claims

What is claimed is:

1   1. A method, comprising:
2   controlling a data flow associated with at least one of a selected number of
3   ports having a first actual usage value above a determined average shared
4   resource usage value associated with the selected number of ports sharing a
5   resource.

1   2. The method of claim 1, further comprising:
2   determining the determined average shared resource usage value.

1   3. The method of claim 1, further comprising:
2   removing a control on the data flow associated with the at least one of the
3   selected number of ports after the at least one of the selected number of ports is
4   determined to have a second actual usage value below the determined average
5   shared resource usage value.

1   4. The method of claim 1, wherein determining the determined average shared
2   resource usage value comprises:
3   selecting the selected number of ports by locating at least one port included
4   in a plurality of ports using an amount of the resource greater than a guaranteed
5   minimum amount;
6   determining a cumulative shared usage value based on the selected number
7   of ports; and
8   determining the determined average shared resource usage value by dividing
9   the cumulative shared usage value by the selected number of ports.

1   5. The method of 1, further comprising:

2   adjusting the selected number of ports to provide a scaled selected number of

3   ports based on a port speed associated with a first port and a port speed

4   associated with a second port, wherein the first port and the second port are

5   included in the selected number of ports.

1   6. The method of claim 1, further comprising:

2   repeatedly determining the determined average shared resource usage value

3   associated with the selected number of ports.

1   7. The method of claim 1, wherein controlling the data flow further comprises:

2   controlling the data flow associated with the at least one of the selected

3   number of ports having the first actual usage value above a dynamic threshold

4   value.

1   8. The method of claim 7, further comprising:

2   setting the dynamic threshold value as a sum of the determined average

3   shared resource usage value and a delta value.

1   9. The method of claim 8, further comprising:

2   determining the delta value according to a port speed and an overall resource

3   usage value including a cumulative shared usage value based on the selected

4   number of ports.

1   10. The method of claim 1, wherein the resource comprises a memory.

1   11. An article comprising a machine-accessible medium having associated data,

2   wherein the data, when accessed, results in a machine performing:

3   controlling a data flow associated with at least one of a selected number of

4   ports having an actual usage value above a determined average shared resource

5   usage value associated with the selected number of ports sharing a resource.

1   12. The article of claim 11, wherein the data, when accessed, results in the

2   machine performing:

3   determining the determined average shared resource usage value.

1   13. The article of claim 11, wherein the data, when accessed, results in the

2   machine performing:

3   adjusting the determined average shared resource usage value to provide a

4   scaled average shared resource value based on a port speed associated with a

5   first port and a port speed associated with a second port, wherein the first port

6   and the second port are included in the number of ports.

1   14. The article of claim 11, wherein controlling the data flow further comprises:

2   controlling the data flow associated with the at least one of the selected

3   number of ports having the actual usage value above a dynamic threshold value.

1   15. The article of claim 14, wherein the data, when accessed, results in the

2   machine performing:

3   setting the dynamic threshold value as a sum of a scaled average shared

4   resource usage value and a delta value.

1   16. The article of claim 11, wherein the resource is a memory.

1   17. The article of claim 11, wherein determining the determined average shared

2   resource usage value comprises:

3   selecting the selected number of ports by locating at least one port included

4   in a plurality of ports using an amount of the resource greater than a guaranteed

5   minimum amount;

6   determining a cumulative shared usage value based on the selected number

7   of ports; and

8   determining the determined average shared resource usage value by dividing

9   the cumulative shared usage value by the selected number of ports.

1   18. The article of claim 17, wherein determining the cumulative shared usage

2   value comprises:

3   over the selected number of ports, summing the amount of the resource used

4   that is greater than a guaranteed minimum amount.

1   19. An apparatus, comprising: ᴧ

2   a controlling module to control a data flow associated with at least one of a

3   selected number of ports having an actual usage value above a determined

4   average shared resource usage value associated with the selected number of

5   ports sharing a resource.

1   20. The apparatus of claim 19, further comprising:

2   an average determination module to determine the determined average

3   shared resource usage value.

1   21. The apparatus of claim 20, wherein the determined average shared resource

2   usage value is determined by determining a cumulative shared usage value

3   based on the selected number of ports and dividing the cumulative shared usage

4   value by the selected number of ports.

1   22. The apparatus of claim 21, wherein the cumulative shared usage value is

2   determined by summing, over the selected number of ports, the amount of the

3   resource used that is greater than a guaranteed minimum amount.

1   23. The apparatus of claim 19, wherein the controlling module comprises a
2   network processor.

1   24. The apparatus of claim 19, further comprising:
2   a Layer 2 Ethernet switch.

1   25. An apparatus, comprising:
2   a memory having a transmit queue storage;
3   a plurality of ports coupled to the memory;
4   a reservation module coupled to the plurality of ports to provide a minimum
5   memory resource per port and to share a remaining memory resource among the
6   plurality of ports:
7   an average determination module to determine a determined average shared
8   resource usage value as the minimum memory resource; and
9   a controlling module to control a data flow associated with at least one of the
10   plurality of ports having an actual usage value above the determined average
11   shared resource usage value.

1   26. The apparatus of claim 25, wherein average determination module is to
2   determine the determined average shared resource usage value by determining a
3   cumulative shared usage value based on the plurality of ports and dividing the
4   cumulative shared usage value by the plurality of ports.

1   27. The apparatus of claim 25, wherein the memory is to store a plurality of
2   packets in the transmit queue storage.

1   28. A system, comprising:
2   a controlling module to control a data flow associated with at least one of a
3   selected number of ports having a first actual usage value above a determined

4   average shared resource usage value associated with the selected number of

5   ports sharing a resource; and

6   a connector including at least one of the selected number of ports.

1   29. The system of claim 28, further comprising:

2   an omnidirectional antenna to receive information included in the data flow.

1   30. The system of claim 28, further comprising:

2   a memory coupled to the selected number of ports.

1   31. The system of claim 30, wherein the memory comprises a transmit queue

2   storage.

1   32. The system of claim 28, further comprising:

2   a communications medium to couple to the connector.